

**REMARKS**

**I. Amendments**

Claims 1-10 and 17-21 have been canceled. Claims 29-39 have been added. The newly added claims do not add or constitute new matter. Support for the newly added claims may be found throughout the specification and originally filed claims.

The foregoing amendments are made solely to expedite prosecution of the instant application, and are not intended to limit the scope of the invention. Further, the amendments to the claims are made without prejudice to the pending or now canceled claims or to any subject matter pursued in a related application. The Applicant reserves the right to prosecute any canceled subject matter at a later time or in a later filed divisional, continuation, or continuation-in-part application.

Upon entry of the amendment, 29-39 are pending in the instant application.

**II. Claim Objections**

The Examiner objected to claim 2 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to limit the subject matter of a previous claim. The Examiner asserts that it is unclear how a screening marker differs from a selection marker, and therefore claim 2 fails to limit the subject matter of claim 1. Applicant respectfully disagrees. The definition and distinction between the terms “selectable marker” and “screening marker” are clearly set forth at, for example, page 7, lines 11-16, page 9, lines 19-20 and page 11, line 29 through page 12, line 6 of the instant specification. However, the current claims do not recite “screening marker” and therefore the Examiner’s objection is no longer relevant.

**III. Claim Rejections**

**A. *Rejection under 35 U.S.C. § 112, first paragraph***

The Examiner has rejected claims 5-10 and 17-21 under 35 U.S.C. 35 U.S.C. § 112, first paragraph, because the specification allegedly does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claim. Applicant respectfully traverses this rejection.

Specifically, the Examiner claims that while the specification is enabling for a homozygous knockout mouse comprising a disruption in the carboxypeptidase X2 (CX2) gene exhibiting phenotypic features such as increased body length, increased tolerance to glucose,

increased ability to metabolize glucose and decreased threshold response to metrazol as compared to a wild-type mouse, a method of producing such a transgenic mouse, and a cell isolated from the mouse, it does not reasonably provide enablement for other transgenic and/or knockout animals comprising any disruption in a CX2 gene, nor for a cell comprising any disruption in a CX2 gene.

In view of the cancellation of claims 5-10 and 17-21, the Examiner's rejection of these claims under 35 U.S.C. 35 U.S.C. § 112, first paragraph is moot. Applicant, therefore, respectfully requests withdrawal of the rejection under 35 U.S.C. § 112, first paragraph. Applicant submits that new claims 29-39 fully meet the requirements and are patentable under 35 U.S.C. § 112, first paragraph.

***B. Rejection under 35 U.S.C. § 112, second paragraph***

The Examiner rejected claims 1-4, 9, 10 and 21 under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Applicant respectfully traverses this rejection.

With regard to claims 1-4 and 10, the Examiner asserts that the arrangement of the targeting construct is unclear. The Applicant disagrees that the arrangement is unclear. However, Applicant submits that the new claims clearly set forth the relative arrangement of the elements of the targeting construct, rendering the Examiner's rejection moot.

Regarding claims 1-4, the Examiner asserts that the terms "selectable marker," "selection marker" and "screening marker" render the claims indefinite as it is unclear how a marker protein can be inserted into a vector construct. The Applicant disagrees, and believes the specification has clearly defined and described the terms and how each would be used in the targeting vector. However, as these claims have been canceled, and the newly added claims recite a selectable marker gene, this aspect of the rejection is no longer relevant.

In rejecting claim 2, the Examiner asserts that it is unclear what the term "screening marker" encompasses, and how a "screening marker" differs from a "selection marker". Applicant respectfully disagrees. As discussed above, the definition and distinction between the terms "selection marker" and "screening marker" are clearly set forth at, for example, page 7, lines 11-16, page 9, lines 19-20 and page 11, line 29 through page 12, line 6, of the instant specification. However, the current claims do not recite either "selection marker" or "screening

marker." The current claims instead recite the term "selectable marker," which term is clearly defined in the specification at, for example, page 7, lines 8-13. Therefore, Examiner's rejection is no longer relevant.

Further, the Examiner asserts that the word "derived" renders claims 9 and 21 indefinite. Applicant respectfully disagrees. As can be found, for example, on page 3, lines 14-16 of the instant specification, the term "derived" is clearly defined and therefore not indefinite. Further, one of ordinary skill in the art would know to what the term "derived", in the context of cells and tissues "derived" from a transgenic mouse, relates. In any case, the current claims do not recite the term "derived." Newly added claims use the term "obtained," which term is clear and definite. Therefore, the Examiner's rejection is no longer relevant.

As the Examiner's rejections under 35 U.S.C. § 112, second paragraph, are no longer relevant, the Applicant respectfully requests withdrawal of the rejection. Applicant submits that new claims 29-39 are definite and particularly point out and distinctly claim the subject matter regarded as the invention in accordance with 35 U.S.C. § 112, second paragraph.

It is believed that the claims are currently in condition for allowance, and notice to that effect is respectfully requested. The Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1271 under Order No. R-716.

Respectfully submitted,

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